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# 侧蚜外茧蜂属的分类研究及二新种记述

## （膜翅目:蚜茧蜂科）

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侧蚜外茧蜂属 *Parapraon* 是 Stary′ 于1983年据前翅中间脉消失，中室外方开放等特征从蚜外茧蜂属 *Praon* 中分出而建立的一个新属，模式种为五倍子侧蚜外茧蜂 *Praon gallicum* Stary′, 1971，除模式种外，本属内还包括毁灭侧蚜外茧蜂 *P. necans* Mackauer, 1959、巴基斯坦蚜外茧蜂 *P. pakistanum* Kirkland, 1979、美洲侧蚜外茧蜂 *P. americanum* (Ashmead)三个种；并认为新北区的 *P. simulans* (Provancher, 1886), *P. unicum* Smith, 1944和日本的缢管侧蚜外茧蜂 *P. rhopalsiphum* Takada, 1968和优曼侧蚜外茧蜂 *P. yomenae* Takada, 1968是否应列入本属，需进一步核查。后两种目前国内已有记载。根据我们在河北及山西所采集的标本及以往材料，认为日本(1968)所记述的二种应归入该属。因此到目前为止侧蚜外茧蜂应有6种，我国已知3种，本文增加两新种，即：短角侧蚜外茧蜂 *Parapraon brachycerum* sp. nov. 及保定侧蚜外茧蜂 *Parapraon baodingense* sp. nov.。毁灭蚜外茧蜂 *P. necans* 为国内首次报道。本属8种可区分如下。

## 种的检索(♀♀)

1.触角节数18或19节……………………………………2
　触角节数少于18或19节……………………………………4
2.触角节数18节，第一鞭节长为基宽的1.4倍；翅痣长为宽的4倍弱，中脉第一段短于第二段……………………………………美洲侧蚜外茧蜂 ***P. americanum***
　触角节数为19节，第一鞭节长为基宽的6～7倍……………………………………3
3.中胸盾片侧叶有毛，具卵形无毛区；痣后脉长于翅痣（图1）……………………………………保定侧蚜外茧蜂 ***Parapraon baodingense*** 新种
　中胸盾片侧叶无毛；痣后脉短于翅痣……………………………………优曼侧蚜外茧蜂 ***P. yomenae***
4.触角节数15或16节……………………………………5
　触角节数13节(图2)……………………………………短角侧蚜外茧蜂 ***Parapraon brachycerum*** 新种
5.触角第一、二鞭节均为黄色……………………………………五倍子蚜外茧蜂 ***P. gallicum***
　触角第一鞭节黄至黄褐色或仅基部黄色，第二鞭节褐色……………………………………6
6.中胸盾片侧叶具毛，仅有卵形无毛区；翅痣比痣后脉短或等长……………………………………7
　中胸盾片侧叶无毛；翅痣比痣后脉长……………………………………缢管侧蚜外茧蜂 ***P. rhopalosiphum***
7.痣后脉与翅痣等长，翅痣长是宽的5倍；胸二色……………………………………巴基斯坦蚜外茧蜂 ***P. pakistanum***
　痣后脉比翅痣长，翅痣长是宽的4倍；胸单色……………………………………毁灭侧蚜外茧蜂 ***P. necans*** 新记录种

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## 新 种 描 述

### 1. 保定侧蚜外茧蜂 *Parapraon baodingense* 新种(图 1)

雌虫：头部背面观近方形，比胸翅基片处宽。复眼小。后颊大于复眼横径，三单眼排列紧凑，呈锐角三角形。脸具稀毛，幕骨指数为 0.4—0.5，唇基近圆形，具毛。触角 19 节，第一鞭节长为基部宽的 6 倍多，是第二鞭节的 1.5 倍，其余各节近等长；触角窝眼距短于触角窝距。

胸部：中胸背板缓和地落入前胸，盾纵沟清晰，中胸盾片具毛，侧叶有卵形无毛区。并胸腹节光滑无脊，无毛。前翅翅痣三角形，长为痣宽的 4.5 倍，为痣后脉的 1.5 倍，径脉与痣后脉近等长，中脉第一段基部着色。

腹部矛形，腹柄节长为气门处宽的 1.4 倍，气门瘤呈乳状突起，光滑，在气门后背板隆起。产卵器鞘细长。

体色：整体呈金黄色；复眼、单眼及三角区域，产卵器鞘，足的跗节末端，痣及脉褐色。触角的柄节、梗节及第一鞭节黄色，第二鞭节色暗，其余各节暗褐色。

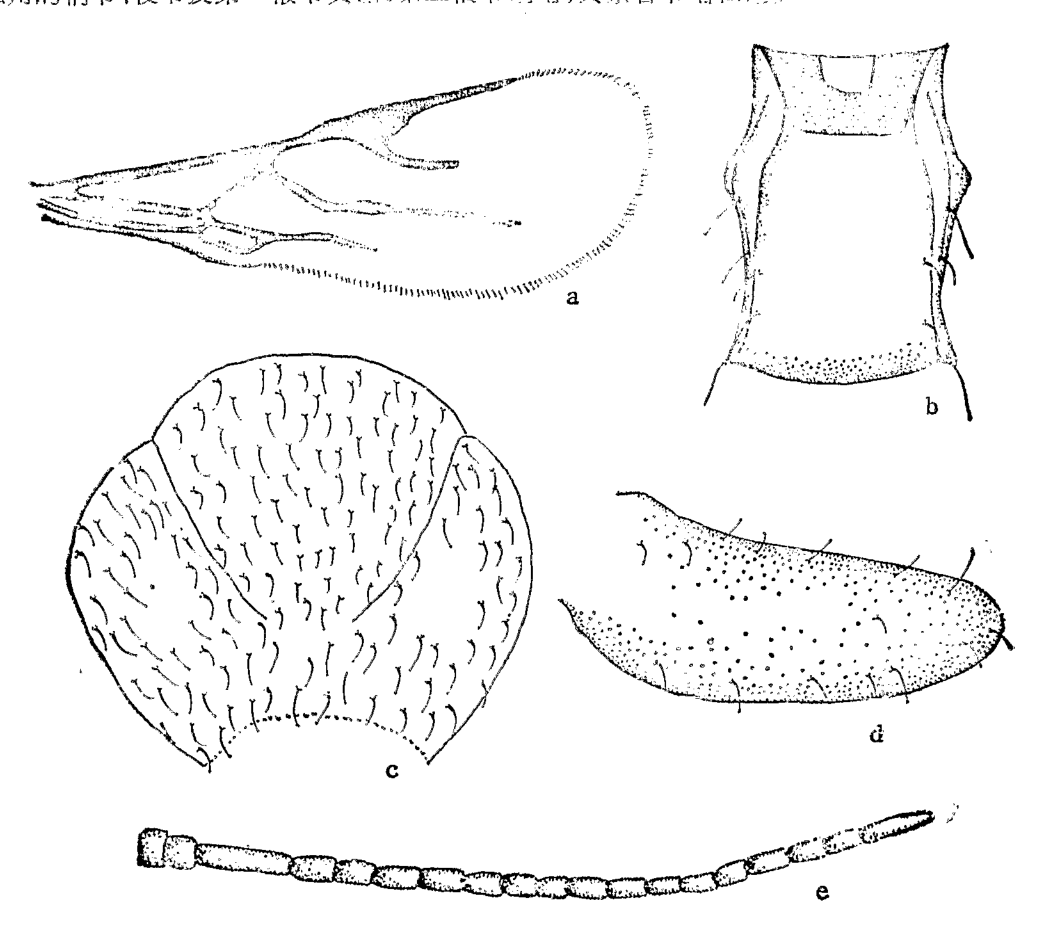



图 1 保定侧蚜外茧蜂 *Parapraon baodingense* sp. nov.
雌虫：a. 前翅； b. 腹柄节背面观； c.中胸盾片及侧叶； d. 产卵器鞘； e. 触角。

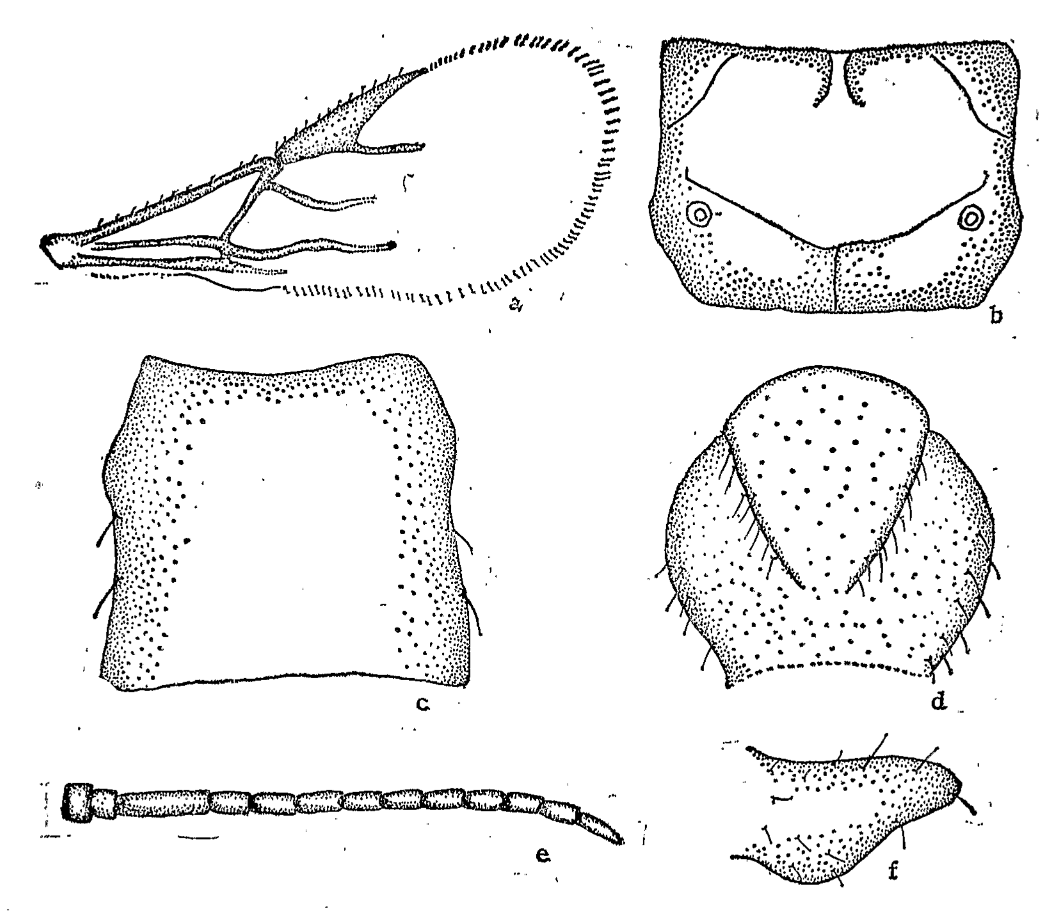



图 2　短角侧蚜外茧蜂 *Parapraon brachycerum* sp. nov. ♀

a. 前翅；b. 并胸腹节；c. 腹柄节；d. 中胸盾片及侧叶；e. 触角；f. 产卵器鞘。

体长 2.5—2.8mm；触角长 2.5—2.7mm；翅长 2.0—2.5mm。

雄虫：触角 20 节。除外生殖器外同雌虫。

模式标本：正模♀，黄花蒿 *Artemisia annua* 的一种蚜虫，1986. V.26、河北，安国县，张万玉采。配模♂，其它同正模；副模：5♀♀，5♂♂，其它同正模。存于河北农业大学标本室。

该种触角节数与优曼蚜外茧蜂 *P. yomenae* 相近，但可从本种具较长痣后脉，中胸盾片侧叶具毛，胸部桔黄色而区分。

**2. 短角侧蚜外茧蜂 *Parapraon brachycerum* 新种(图 2)**

雌虫：头部背面观近方形，较胸翅基片处宽。复眼中等大小，卵圆形，向唇基收敛。后颊与复眼横径近等长，三单眼排列呈锐角三角形。脸具稀毛，幕骨指数为 0.3—0.4。唇基圆形，密毛。触角 13 节，第一鞭节长为基宽的 4—5 倍，为第二鞭节 1.3 倍。触角窝眼距等于触角窝距。

胸部：中胸背板缓和地落入前胸，中胸盾片光滑，盾纵沟清晰，仅沿盾纵沟处及边缘有稀疏毛。并胸腹节无完整小室，毛稀。前翅翅痣三角形，长为痣宽 3—4 倍，为痣后脉

2.4 倍,径脉长于痣宽,中脉第一段基部着色。

腹部矛形,腹柄节长与气门瘤处宽近相等,方形,无皱折,在气门瘤后两侧缘各有 2 根毛,在气门瘤间背板稍隆起,气门瘤明显。以后背板光滑,发亮。产卵器鞘细窄 。

体色: 整体茶褐或栗褐色。唇基及口须黄褐色，柄节、梗节和第一鞭节基部污黄色，其余褐色。胸部单色,褐色。跗节色淡。翅透明。腹柄节黄褐色，第一、二腹节节间缝黄色,其它褐色。

体长 1.2—1.4mm; 触角长 0.9—1.1mm; 翅长 1.0—1.2mm。

雄虫: 触角 14 节。其它同雌虫。

模式标本: 正模♀,黄花蒿 *Artemisia annua* 上一种蚜虫，1986. VI.6, 山西,太谷，张万玉采。配模♂,其它同正模;副模: 5♀♀,3♂♂,其它同正模; 4♀♀,2♂♂, 1985. VI.、河北,保定,张万玉采。均存于河北农业大学标本室。

本种可借助于 13 节触角节数,个体小，前翅翅脉及中胸背板毛少等特征与本属内其它种区别。

## 参 考 文 献

董大志、王云珍 1985 云南农作物蚜茧蜂初记。昆虫天敌 7(3): 172—180。

Kirkland, R. L., 1979 A new species of *Praon* (Hymenoptera: Aphidiidae) imported from Pakistan. *J. Kans. Ent. Soc.* 52(2). 309--312.

Mackauer, M., 1959 Die europäschen Arten der Gattungen *Praon* und *Areprαon* (Hymenoptera: Braconidae, Aphidiidae). *Beitr. Ent.* 9: 810--865.

———— 1968 Aphidiidae, Paris. In Ferriere Ch & V. d. Vecht (edts) Hymenopterum Catalogus 103 pp. Dr. W. junk N. V. The Hague.

Smith, C. F. 1944 The Aphidiinae of North America (Braconidae: Hymenoptera), *Ohio State Univ. Contr. Zool. Ent.* 6: 1—154.

Stary, P., 1983 *Parapraon,* a new genus of the Aphidiidae (Hymenoptera). *Acta Ent. Bohemoslov.* 80(1): 206—209.

Takada, H., 1968 Aphidiidae of Japan *Ins. Mats.* 30(2): 67—124.

Watanabe, C. & H. Takada, 1964 Occurence of two species of the genus *Praon Haliday* in Japan (Hymenoptera; Aphidiidae). *Ins. Mats.* 27(1): 8—11.

# A STUDY ON *PARAPRAON* STARY, 1983 AND DESCRIPTIONS OF TWO NEW SPECIES (HYMENOPTERA:APHIDIIDAE)

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According to Stary' (1983), 4 species of *Parapraon* are recorded in the World. This paper described two new species of *Parapraon baodingense* sp. nov. and *Parapraon brachycerum* sp. nov.; *P. necans* is recorded for the first time in China. In addition, two new combinations of *Parapraon rhopalsiphum*(Takada, 1968)and *Parapraon yomenae* (Takada, 1968) are transfered from *Praon* Haliday based our materials as well as their original descriptions. A key to 8 species in *Parapraon* of the World is given as follows:

## Key to species (♀♀)

1. Antennae 18 or 19 segmented............................2
   Antennae with a lower number of segments ............................4
2. Antennae 19 segmented, flagellar segment I about 6—7 times as long as basal width............................3
   Antennae 18 segmented, flagellar segment I about 1.4 times as long as basal width; pterostigma 4 times as long as width, radial abscissa I shorter than abscissa II............................***P. americanum***
3. Metacarp longer than pterostigma; lateral lobes on mesoscutum with hairs, only with small oval hairless areas (fig.1).............. ***Parapraon baodingense* sp. nov.**
   Metacarp shorter than pterostigma; lateral lobes on mesoscutum nearly hairless ............................*P. yomenae*
4. Antennae 15 or 16 segmented ............................5
   Antennae 13 segmented (fig.2).............. ***Parapraon brachycerum* sp. nov.**
5. Flagellar segments I,II entirly yellow; pterostigma longer than metacarp; thorax blackishbrown............................***P. gallicum***
   Flagellar segment I yellowish to yellowish brown or only yellow on basal part, segment II brown ............................6
6. Lateral lobes on mesoscutum with hairs, only with oval hairless area; metacarp equal to or shorter than pterostigma ............................7
   Lateral lobes on mesoscutum without hairs; metacarp longer than pterostigma ............................***P. rhopalosiphum***
7. Pterostigma equal to metacarp, 5 times as long as width.........***P. pakistanicum***
   Pterostigma shorter than metacarp, 4 times as long as width............ ***P. necnas***

All specimens including the types of new species are kept in the Hebei Agricultural University.

**1. *Parapraon baodingense* Ji & Zhang, sp. nov.** (fig.1)

This species similar to *P. yomenae* in antennal segments, but it differs in 1): pterostigma 1.5 times as long as width(shorter than metacarp in *yomenae*); 2): lateral lobes on mesoscutum with hairs (nearly hairless); 3): thorax entirly yellow (brown).

Female measurements: Body 2.5—2.7; antennae 2.5—2.7; fore wing 2.0—2.5mm.

Male: antennae 20 segmented, otherwise like female except sexual characters.

Holotype, ♀, on *Artemisia annua*, Anguo County, Hebei Province, May 20, 1986, by Zhang Wan-yu. Allotype, ♂, with same data as the holotype. Paratypes, 5♀♀, 5♂♂, with same data as holotype.

**2. *Parapraon brachycerum* Zhang, & Ji sp. nov.** (fig.2)

This species has 13 segmented antennae, small body, mesoscutum nearly hairless, only a few of hairs along the notaulics and margianal part; pterostigma 3—4 times as long as width, 2.4 times as long as metacarp. so it is easily separated from the congeners.

Female measurements: Body 1.2—1.4; antennae 0.9—1.1; forewing 1.0—1.2mm.

Male: antennae 14 segmented, otherwise like female except sexual charaters.

Holotype, ♀, on *Artemisia annua*, Taigu City, Shanxi province, June 6, 1986, by Zhang Wan-yu. Allotype, ♂, with same data as the holotype. Paratypes, 5♀♀, 3♂♂, with the same data as the holotype, 4♀♀, 2♂♂ Baoding City, Hebei Province, June 10, 1985, on *A annua*, by Zhang Wan yu.